WHAT IS CLAIMED IS:

1. A second-order bandpass IIR type digital filter, wherein assuming that a sampling frequency is six times as large as a central frequency of a passing frequency band, a first-order input feedback coefficient b1 is set at $-1 + 2^{-n}$ and a second-order input feedback coefficient b2 is set at $1 - 2^{-(n-1)}$ (n: an odd number of 3 or larger).

2. A second-order bandpass IIR type digital filter according to claim 1, wherein a zero-order output coefficient a_0 of an is set at 2^{-n} ($a_0 = 2^{-n}$) and a coefficient a2 of a second-order output is set at -2^{-n} ($a_2 = -2^{-n}$).

3. A second-order bandpass IIR digital filter according to claim 1, wherein the second-order output is subtracted from the zero-order output and a subtraction result is multiplied by 2^{-n}.

4. A reference signal canceling apparatus comprising: a filter for extracting a reference signal contained in an FM detected signal; and a subtracter for subtracting an output from the filter from said FM detected signal, wherein said filter is constructed as a second-order bandpass IIR type digital filter, and assuming that a sampling frequency is six times as large as a central frequency of a passing frequency band, a first-order input feedback coefficient b1 is set at $-1 + 2^{-n}$ and a second-order input feedback coefficient b2 is set at $1 - 2^{-(n-1)}$ (n: an odd number of 3 or larger).

5. In a reference signal canceling apparatus comprising: a filter for extracting a reference signal contained in an FM

detected signal; and a subtracter for subtracting an output from the filter from said FM detected signal, a method of canceling a reference signal, comprising the steps of:

constructing said filter as a second-order bandpass IIR type digital filter, and

assuming that a sampling frequency is six times as large as a central frequency of a passing frequency band, setting a first-order input feedback coefficient b1 at $-1 + 2^{-n}$ and a second-order input feedback coefficient b2 is set at $1 - 2^{-(n-1)}$ (n: an odd number of 3 or larger).